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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/755,083	01/09/2004	Michael D. Jensen	C51757-0770	8188
35395	7590	07/19/2005	EXAMINER	
WOMBLE CARLYLE SANDRIDGE & RICE, PPLC CHEVRON PHILLIPS CHEMICAL COMPANY LP P.O. BOX 7037 ATLANTA, GA 30357-0037			LEE, RIP A	
			ART UNIT	PAPER NUMBER
			1713	

DATE MAILED: 07/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/755,083

Applicant(s)

JENSEN ET AL.

Examiner

Rip A. Lee

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 11 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-57 is/are pending in the application.
- 4a) Of the above claim(s) 30-57 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 14-18, 28 and 29 is/are rejected.
- 7) ☒ Claim(s) 1,3,4,7-13,16 and 19-29 is/are objected to.
- 8) ☒ Claim(s) 1-57 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 07-16-04; 11-01-04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election of group I, claims 1-29 with traverse in the reply filed on May 11, 2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). The requirement is still deemed proper and is therefore made FINAL.

### *Claim Objections*

2. Claims 1, 4, 10, 28, 29 are objected to because of the following informalities: The claims contain definitions for (X<sup>5</sup>) and (X<sup>6</sup>) that are not internally consistent. The second metallocene is bridged, and therefore, ligands (X<sup>5</sup>) and (X<sup>6</sup>) are *necessarily* substituted, as indicated (for claim 1) on page 100, line 15. In a preceding definition (line 7), the claim incorrectly states that (X<sup>5</sup>) and (X<sup>6</sup>) are unsubstituted. Claims 4, 10, 28, and 29 recite the same inconsistency. Appropriate corrections are required.

3. Claims 1, 4, 28, and 29 are objected to because of the following informalities: The claims describe a substituent that is an "inorganic group" and an "organometallic group." Such a description encompasses an infinite combination of groups which are not defined by the claim or by the specification. As such, the subject matter of the claims is unclear. Appropriate corrections are required.

4. Claim 3 is objected to because of the following informalities: The recitation "wherein the chemically...electron-withdrawing anion" is redundant since it already appears in the independent claim. Appropriate correction is required.

Art Unit: 1713

5. Claims 7-9 and 11-13 are objected to because of the following informalities: The claims make use of the term "or any combination of" inconsistent with the scope of the claim. According to the independent claims, there is only one first metallocene and only one second metallocene. As such, it is unclear what is meant by the term "or any combination of" in context of the instant claims. Appropriate correction is required.

6. Claim 16 is objected to because of the following informalities: The claim recites that the solid oxide component further comprises zinc-impregnated solid oxides. It is not clear from the specification that the catalyst contains *two* types of treated solid oxide support. Elucidation and/or appropriate correction is required.

7. Claims 19, 20, 23-25, and 27 are objected to because of the following informalities: The claims use the phrase "further comprising an optional." If the catalyst further comprises the claimed features, then it is not "optional." If these features are optional, *i.e.*, not needed, then the claims are not needed either. Appropriate corrections are required.

8. Claim 27 is objected to because of the following informalities: Please correct the following nomenclature errors.

page 111, line 25 and page 112, line 19      insert "phenyl" in "*tetrakis*(2,4-dimethyl)"

page 112, lines 9, 12, 15, and 31      "replace *tetrakis*(phenyl)" with "tetraphenyl"

page 113, lines 3 and 7

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1-10, 14-18, 28, and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Hawley *et al.* (U.S. 6,667,274).

Hawley *et al.* discloses a catalyst composition comprised of the contact product of at least one organometallic component, at least one organoaluminum component, and at least one solid oxide treated with an electron-withdrawing anion (see discussion in column 2 and claims 1-10). The organometallic component(s) is/are bridged at the cyclopentadienyl, indenyl, or fluorenyl based ligands (X<sup>1</sup>) and (X<sup>2</sup>) (col. 8, lines 8-12), and the general formula of these compounds is essentially the same as that presented in the instant claims. Specific examples are shown in columns 9-12, and they are identical to those shown in the instant claims 7 and 8. Compounds of claim 9 are presented in U.S. 5,565,592, the entire disclosure of which is incorporated by reference (col. 9, lines 1 and 5). With regard to the solid oxide component, there is mentioned fluoride sources (col. 4, line 55-57) for impregnating solid oxides such as alumina, silica, and silica-alumina (col. 5, line 66 – col. 6, line 3). A support comprised of zinc-containing alumina is particularly useful (claim 6). The mass ratio of organoaluminum to solid oxide lies in the range of 5/1 to 1/1000 (col. 13, line 27). Examples of organoaluminum compounds are shown in column 12.

Art Unit: 1713

11. Claims 11-13 and 19-27 are objected to as being dependent upon a rejected base claim, but would be allowable if amended appropriately to overcome claim objections (claims 11-13, 19, 20, 23-25, and 27), and if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The subject matter of the instant claims is not disclosed or fairly suggested in the cited reference.

The prior art made of record but not relied upon is considered pertinent to the Applicant's disclosure. The reference cited in the accompanying PTO-892 have been cited to show the state of the art with respect to dual catalyst systems or catalysts containing inorganic oxide supports treated with electron withdrawing anions.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<http://pair-direct.uspto.gov>>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

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July 14, 2005



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